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EXAMINER

CLEARY, THOMAS J

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|------------------------------------|--|
| Office Action Summary | Application No. 10/689,747 | Applicant(s) PARK ET AL. | |
| | Examiner THOMAS J. CLEARY | Art Unit 2111 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the Applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the Applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 8 is rejected under 35 U.S.C. 102(e) as being anticipated by US Patent Number 7,082,598 to Le et al. ("Le").

3. In reference to Claim 8, Le discloses a personal digital assistant, comprising: a USB interface (See Figure 9); an input section receiving a system switchover command from a user by bringing an application window to the foreground (See Column 30 Lines 65-67, Column 31 Lines 5-24, and Column 32 Lines 41-48); and a USB data driver selecting unit selectively loading USB data drivers into the personal digital assistant in response to a data interface specification request inputted from the user and transmitting/receiving data to/from a USB host via the selected USB data driver driving

the USB interface selectively loading a different driver than the driver currently loaded and communicating with the USB host using the loaded driver (See Column 8 Line 29 – Column 9 Line 32 and Column 31 Line 35 – Column 32 Line 3).

4. Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by US Patent Application Publication Number 2002/0162348 to Scales et al. (“Scales”).

5. In reference to Claim 8, Scales discloses a personal digital assistant, comprising: a USB interface (See Figure 7 Number 27); an input section receiving a system switchover command from a user (See Paragraph 43); and a USB data driver selecting unit selectively loading USB data drivers into the personal digital assistant in response to a data interface specification request inputted from the user and transmitting/receiving data to/from a USB host via the selected USB data driver driving the USB interface selectively loading a different driver than the driver currently loaded and communicating with the USB host using the loaded driver (See Paragraphs 44-50).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-7, and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Number 6,256,008 to Sparks et al. ("Sparks"), Le, and US Patent Number 5,905,492 to Straub et al. ("Straub").

8. In reference to Claims 1, 2, and 3, Sparks discloses a personal hand held terminal system, comprising: a USB mass storage driver (See Figure 2 and Column 3 Lines 33-48). Sparks does not disclose a data sync driver; a USB interface interfacing data with a USB host; an input section receiving a system switchover command from a user via a physical system switchover command key to cause the USB host to selectively recognize the system as a USB mass storage or a data sync client; and a control section selectively loading the data sync driver or the USB mass storage driver into the personal hand held terminal system according to the system switchover command input through the input section, and controlling the system to transmit/receive the data to/from the USB host by the loaded driver and the USB interface, as in Claim 1; that the control section loads the data sync driver, if a data transmission/reception request is delivered from the USB host based on a data sync module specification while the system is selected to operate as the USB mass storage, as in Claim 2; and the control section forcibly terminates the loaded USB mass storage driver, if a data transmission/reception request is delivered from the USB host based on a data sync module specification while the system is selected to operate as the USB mass storage, as in Claim 3. Le discloses that PDAs commonly have a USB interface and a data sync

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driver (See Column 30 Lines 51-62). Le further discloses a user selectively loading a different driver than the driver currently loaded and communicating with the USB host using the loaded driver by bringing an application window to the foreground (See Column 8 Line 29 – Column 9 Line 32, Column 30 Lines 65-67, Column 31 Lines 5-24, Column 31 Line 35 – Column 32 Line 3, and Column 32 Lines 41-48). Straub discloses using a mouse or pressing a key, which are equivalent to using a physical command key, to bring a new application window to the foreground of a display (See Column 1 Lines 28-52)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the PDA of Sparks with the driver switching ability of Le and the mouse or key input for switching application windows of Straub, resulting in the invention of Claims 1, 2, and 3, in order to allow the device to act like a different device for a limited time to expose unique features (See Column 2 Lines 24-27 and Column 31 Lines 48-55 of Le); and because the use of mice or key combinations is well known in the art for bringing an application window to the foreground and allows the user to work with multiple application programs (See Column 1 Lines 48-52 of Straub).

9. In reference to Claim 4, Sparks discloses a method of interfacing information of a personal hand held terminal system, comprising: loading a preset mass storage driver into the personal hand held terminal system; and interfacing data with a host via the mass storage driver, if a data transmission/reception request is delivered from the host according to a mass storage specification (See Figure 2 and Column 3 Lines 33-48).

Sparks does not disclose that the mass storage driver is a USB mass storage driver and loading the mass storage driver if a system USB mass storage switchover command is input via a physical system switchover command key. Le discloses that PDAs commonly have a USB interface (See Column 30 Lines 51-62). Le further discloses a user selectively loading a different driver than the driver currently loaded and communicating with the USB host using the loaded driver by bringing an application window to the foreground (See Column 8 Line 29 – Column 9 Line 32, Column 30 Lines 65-67, Column 31 Lines 5-24, Column 31 Line 35 – Column 32 Line 3, and Column 32 Lines 41-48). Straub discloses using a mouse or pressing a key, which are equivalent to using a physical command key, to bring a new application window to the foreground of a display (See Column 1 Lines 28-52)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the PDA of Sparks with the driver switching ability of Le, resulting in the invention of Claim 4, in order to allow the device to act like a different device for a limited time to expose unique features (See Column 2 Lines 24-27 and Column 31 Lines 48-55 of Le); and because the use of mice or key combinations is well known in the art for bringing an application window to the foreground and allows the user to work with multiple application programs (See Column 1 Lines 48-52 of Straub).

10. In reference to Claim 5, Sparks, Le, and Straub disclose the limitations as applied to Claim 4 above. Le further discloses loading a preset data sync driver, if a data transmission/reception request is delivered from the USB host based on a data

sync driver specification while another driver is loaded; and interfacing the data with the host via the loaded data sync driver (See Column 8 Line 29 – Column 9 Line 32 and Column 31 Line 35 – Column 32 Line 3).

11. In reference to Claim 6, Sparks, Le, and Straub disclose the limitations as applied to Claim 5 above. Le further discloses that the data sync driver is loaded after terminating the loaded driver (See Column 8 Line 48 – Column 9 Line 2).

12. In reference to Claim 7, Sparks discloses a personal hand held terminal system, comprising: a mass storage driver; and an interface interfacing data with a host (See Figure 2 and Column 3 Lines 33-48). Sparks does not disclose that the mass storage driver is a USB mass storage driver; a data sync driver; an input section receiving a system switchover command from a user via a physical system switchover command key; that the interface is a USB interface; and a control section selectively loading the USB mass storage driver or the data sync driver into the personal hand held terminal system according to the data transmission/reception specification request from the USB host, and interfacing data with the USB host via the loaded driver and the USB interface. Le discloses that PDAs commonly have a USB interface and a data sync driver (See Column 30 Lines 51-62). Le further discloses a user selectively loading a different driver than the driver currently loaded and communicating with the USB host using the loaded driver by bringing an application window to the foreground (See Column 8 Line 29 – Column 9 Line 32, Column 30 Lines 65-67, Column 31 Lines 5-24,

Column 31 Line 35 – Column 32 Line 3, and Column 32 Lines 41-48). Straub discloses using a mouse or pressing a key, which are equivalent to using a physical command key, to bring a new application window to the foreground of a display (See Column 1 Lines 28-52)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the PDA of Sparks with the driver switching ability of Le, resulting in the invention of Claim 7, in order to allow the device to act like a different device for a limited time to expose unique features (See Column 2 Lines 24-27 and Column 31 Lines 48-55 of Le); and because the use of mice or key combinations is well known in the art for bringing an application window to the foreground and allows the user to work with multiple application programs (See Column 1 Lines 48-52 of Straub).

13. In reference to Claim 11 Sparks discloses a personal digital assistant, comprising: an interface; and a programmed computer processor controlling the assistant according to a process of: loading a mass storage data driver (See Figure 2 and Column 3 Lines 33-48). Sparks does not disclose that the interface is a USB interface; an input section receiving a data sync transmission/reception request from a user via a physical system switchover command key; the mass storage data driver is a USB mass storage data driver; determining if the data sync transmission/reception request is received from a USB host over the USB interface, unloading the USB mass storage data driver, if determined that the data sync transmission/reception request is received, loading a data sync driver, and transmitting/receiving data to/from the USB

host via the loaded data sync driver over the USB interface. Le discloses that PDAs commonly have a USB interface and a data sync driver (See Column 30 Lines 51-62). Le further discloses a user selectively loading a different driver than the driver currently loaded and communicating with the USB host using the loaded driver by bringing an application window to the foreground (See Column 8 Line 29 – Column 9 Line 32, Column 30 Lines 65-67, Column 31 Lines 5-24, Column 31 Line 35 – Column 32 Line 3, and Column 32 Lines 41-48). Straub discloses using a mouse or pressing a key, which are equivalent to using a physical command key, to bring a new application window to the foreground of a display (See Column 1 Lines 28-52).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the PDA of Sparks with the driver switching ability of Le, resulting in the invention of Claim 11, in order to allow the device to act like a different device for a limited time to expose unique features (See Column 2 Lines 24-27 and Column 31 Lines 48-55 of Le); and because the use of mice or key combinations is well known in the art for bringing an application window to the foreground and allows the user to work with multiple application programs (See Column 1 Lines 48-52 of Straub).

14. In reference to Claim 13, Le discloses a system comprising a host and a mobile device (See Figure 4, the mobile device), comprising: at least two drivers (See Column 8 Line 29 – Column 9 Line 32 and Column 31 Line 35 – Column 32 Line 3); an input section with a system switchover command key receiving commands from a user by bringing an application window to the foreground (See Column 30 Lines 65-67, Column

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31 Lines 5-24, and Column 32 Lines 41-48); a USB interface capable of connection to the host (See Figure 4); and a control section having a driver manager, wherein the at least two drivers comprise a data sync driver synchronizing and interfacing data between the host and the system (See Column 30 Lines 51-62). Le does not disclose that the key is a physical system switchover command key; and a USB mass storage driver causing the host to recognize the system as a USB mass storage to interface/exchange the data with the system via the USB interface. Sparks discloses a PDA having a mass storage data driver (See Figure 2 and Column 3 Lines 33-48). Straub discloses using a mouse or pressing a key, which are equivalent to using a physical command key, to bring a new application window to the foreground of a display (See Column 1 Lines 28-52)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the PDA of Sparks with the driver switching ability of Le, resulting in the invention of Claim 13, in order to allow the device to act like a different device for a limited time to expose unique features (See Column 2 Lines 24-27 and Column 31 Lines 48-55 of Le); and because the use of mice or key combinations is well known in the art for bringing an application window to the foreground and allows the user to work with multiple application programs (See Column 1 Lines 48-52 of Straub).

15. Claims 9, 10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Le as applied to Claim 8 above, and further in view of Sparks.

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16. In reference to Claim 9, Le discloses the limitations as applied to Claim 8 above. Le does not disclose that the USB data drivers comprise a USB mass storage data driver. Le further discloses that PDAs commonly have a USB interface and a data sync driver (See Column 30 Lines 51-62). Le further discloses a user selectively loading a different driver than the driver currently loaded and communicating with the USB host using the loaded driver (See Column 8 Line 29 – Column 9 Line 32, Column 30 Lines 65-67, Column 31 Line 35 – Column 32 Line 3, and Column 32 Lines 41-48). Sparks discloses a PDA having a mass storage data driver (See Figure 2 and Column 3 Lines 33-48).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the PDA of Sparks with the driver switching ability of Le, resulting in the invention of Claim 9, in order to allow the device to act like a different device for a limited time to expose unique features (See Column 2 Lines 24-27 and Column 31 Lines 48-55 of Le).

17. In reference to Claims 10 and 12, Le discloses the limitations as applied to Claim 8 above. Le does not disclose that the USB data drivers comprise a USB mass storage data driver. Le further discloses that PDAs commonly have a USB interface and a data sync driver (See Column 30 Lines 51-62). Le further discloses selectively loading a different driver than the driver currently loaded and communicating with the USB host using the loaded driver (See Column 8 Line 29 – Column 9 Line 32 and Column 31 Line

35 – Column 32 Line 3). Sparks discloses a PDA having a mass storage data driver (See Figure 2 and Column 3 Lines 33-48).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the PDA of Sparks with the driver switching ability of Le, resulting in the invention of Claims 10 and 12, in order to allow the device to act like a different device for a limited time to expose unique features (See Column 2 Lines 24-27 and Column 31 Lines 48-55 of Le).

18. Claims 1, 7, 11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scales, Sparks, and Le.

19. In reference to Claim 1 Scales discloses a personal hand held terminal system, comprising: a first driver (See Paragraph 48); a second driver (See Paragraph 49); a USB interface interfacing data with a USB host (See Figure 1 Number 6 and Figure 7 Number 52); an input section receiving a system switchover command from a user via a physical system switchover command key to cause the USB host to selectively recognize the system as a first type function or a second type function (See Paragraph 43); and a control section selectively loading the first driver or the second driver into the personal hand held terminal system according to the system switchover command input through the input section, and controlling the system to transmit/receive the data to/from the USB host by the loaded driver and the USB interface (See Paragraphs 43-50).

Scales does not disclose that the first driver is a USB mass storage driver; the second

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driver is a data sync driver; the first type function is a USB mass storage; and the second type function is a data sync client. Le discloses that portable devices having a data sync driver are well known in the art (See Column 30 Lines 51-62). Sparks discloses that portable devices having USB mass storage drivers are well known in the art (See Column 3 Lines 33-48).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the device of Scales with a data sync function and driver and a USB mass storage function and driver, resulting in the invention of Claim 1, in order to allow the device to synchronize data with a host computer (See Column 30 Lines 42-62 of Le) and to allow the transport and storage of data.

20. In reference to Claim 7 Scales discloses a personal hand held terminal system, comprising: a first driver (See Paragraph 48); a second driver (See Paragraph 49); an input section receiving a system switchover command from a user via a physical system switchover command key (See Paragraph 43); a USB interface interfacing data with a USB host (See Figure 1 Number 6 and Figure 7 Number 52); and a control section selectively loading the first driver or the second driver into the personal hand held terminal system according to the system switchover command from the USB host, and interfacing data with the USB host via the loaded driver and the USB interface (See Paragraphs 43-50). Scales does not disclose that the first driver is a USB mass storage driver; the second driver is a data sync driver; the first type function is a USB mass storage; and the second type function is a data sync client. Le discloses that portable

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devices having a data sync driver are well known in the art (See Column 30 Lines 51-62). Sparks discloses that portable devices having USB mass storage drivers are well known in the art (See Column 3 Lines 33-48).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the device of Scales with a data sync function and driver and a USB mass storage function and driver, resulting in the invention of Claim 7, in order to allow the device to synchronize data with a host computer (See Column 30 Lines 42-62 of Le) and to allow the transport and storage of data.

21. In reference to Claim 11 Scales discloses a personal digital assistant, comprising: a USB interface (See Figure 1 Number 6 and Figure 7 Number 52); an input section receiving a data sync transmission/reception request from a user via a physical system switchover command key (See Paragraph 43); loading a first driver into the personal digital assistant (See Paragraph 48); determining if the data sync transmission/reception request is received from a USB host over the USB interface (See Paragraphs 43-50); unloading the first driver if determined that the data sync transmission/reception request is received (See Paragraphs 43-50); loading a second driver (See Paragraph 49); and transmitting/receiving data to/from the USB host via the loaded second driver over the USB interface (See Paragraphs 43-50). Scales does not disclose that the first driver is a USB mass storage driver; the second driver is a data sync driver; the first type function is a USB mass storage; and the second type function is a data sync client. Le discloses that portable devices having a data sync driver are

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well known in the art (See Column 30 Lines 51-62). Sparks discloses that portable devices having USB mass storage drivers are well known in the art (See Column 3 Lines 33-48).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the device of Scales with a data sync function and driver and a USB mass storage function and driver, resulting in the invention of Claim 11, in order to allow the device to synchronize data with a host computer (See Column 30 Lines 42-62 of Le) and to allow the transport and storage of data.

22. In reference to Claim 13, Scales discloses a system comprising a host (See Figure 1 Number 2) and a mobile device (See Figure 1 Number 3), the mobile device, comprising: at least two drivers (See Paragraphs 43-50); an input section with a physical system switchover command key receiving commands from a user (See Paragraph 43); a USB interface capable of connection to the host (See Figure 1 Number 6); and a control section having a driver manager, wherein the at least two drivers comprise a first driver interfacing data between the host and the system and a second driver causing the host to recognize the system as a second type function to interface/exchange the data with the system via the USB interface (See Paragraphs 43-50). Scales does not disclose that the first driver is a USB mass storage driver; the second driver is a data sync driver; and the second type function is a data sync client. Le discloses that portable devices having a data sync driver are well known in the art

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(See Column 30 Lines 51-62). Sparks discloses that portable devices having USB mass storage drivers are well known in the art (See Column 3 Lines 33-48).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the device of Scales with a data sync function and driver and a USB mass storage function and driver, resulting in the invention of Claim 13, in order to allow the device to synchronize data with a host computer (See Column 30 Lines 42-62 of Le) and to allow the transport and storage of data.

23. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scales and Sparks.

24. In reference to Claim 4 Scales discloses a method of interfacing information of a personal hand held terminal system, comprising: loading a preset first driver into the personal hand held terminal system, if a system/USB switchover command is input via a physical system switchover command key; and interfacing data with a USB host via the first driver, if a data transmission/reception request is delivered from the USB host according to a first specification (See Paragraphs 43-50). Scales does not disclose that the first driver is a USB mass storage driver and the first type function is a USB mass storage. Sparks discloses that portable devices having USB mass storage drivers are well known in the art (See Column 3 Lines 33-48).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the device of Scales with a USB mass storage function

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and driver, resulting in the invention of Claim 4, in order to allow the transport and storage of data.

Response to Arguments

25. Applicant's arguments with respect to Claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THOMAS J. CLEARY whose telephone number is (571)272-3624. The examiner can normally be reached on Monday-Thursday (7-3).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 571-272-3632. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas J. Cleary/
Examiner, Art Unit 2111